Manufacturing Workers Age Profile and Implications for Earnings
September 16, 2020

Coordinator: Welcome and thank you for standing by. All lines have been placed in a listen-only mode until the question-and-answer session.

The call is being recorded. If you have any objections, you may disconnect at this time.

I would now introduce your conference host, Ms. Earlene Dowell. You may begin.

(Earlene Dowell): Thank you, Catherine and thank you to Lisa Glover-West from the Census Bureau for hosting our webinar.

Good afternoon everyone. In light of the recent transition to 100% tele-work, we are utilizing technology offsite to continue operations. We aim to minimize interruptions as much as possible, but we appreciate your patience if we experience any technical delays.

Please utilize the chat feature to notify us of issues should any arise. And we will do our best to address them. All webinars and Q&A sessions are recorded and will be accessible from the Census Academy's Webinars tab once the recording and transcripts are available. Please go to www.Census.gov/Academy.

Please save all questions until the end of the presentation. And thank you for your continued support of our outreach and education efforts.

On behalf of the US Census Bureau and the local employment dynamics partnership, in collaboration with the Council for Community and Economic Research, and Labor Market Information Institute, welcome to the September LED webinar, Manufacturing Workers Age Profile and Implications for Earnings with our presenter, Patrick Flaherty.

Before the pandemic, Connecticut experienced a rise in manufacturing employment along with evidence that employment growth would be even stronger if employers could find the right workers to hire. Employers reported hundreds of unfilled openings. Nevertheless, the average wage in manufacturing from traditional statistics, such as the Quarterly Census of Employment and Wages, did not increase at the pace that would be expected given a labor shortage in this industry.

The quarterly Workforce Indicators Data Set helps to solve this puzzle by examining employment hires and separations by age and wage, the composition of the manufacturing workforce is changing and that average wages are being held down because highly paid older workers are separating, presumably retiring while newly hired younger workers are earning less than the older workers they are replacing.

Patrick J. Flaherty is Assistant Director of Research and Information at the Connecticut Department of Labor where he is part of the leadership team of the state's labor market information unit. Prior to his promotion to Assistant Director, he was an economist in the Office of Research where his responsibilities included occupational projections and long-term industry projections.

Patrick has authored several manuscripts for the Office of Research and has given many talks and presentations to businesses and job speaker groups. He

is also an adjunct professor at the University of Connecticut where he teaches Principles of Microeconomics.

Among his experiences, Patrick worked for 14 years for Fleet Financial Group and its predecessor company where he was Vice President and Senior Economist and served ten years as a State Representative in the Connecticut General Assembly. Currently, Patrick is the Labor Commissioner's Designee as a member of the Connecticut Retirement Security Authority. He's also the New England Representative on the Local Employment Dynamic Steering Committee.

Patrick received his bachelor's degree in Social Studies from Harvard University and his master's degree in Economics from the University of Connecticut. With that, I hand it over to Patrick.

Patrick Flaherty: Thank you so much for that introduction. And it's really great to be here.

So this presentation does focus on Connecticut data, but what it really is about is how to use LED data to solve puzzles that we find in a way that you can't just find in a straightforward way using the traditional statistics such as the QCEW and current employment statistics. The LED data really allows us to look at some of the details that were described in the introduction and I will get into those right now.

But first, let's give a little overview of the - so I'm going to give a little overview of what we saw in the traditional statistics. And then I'm going to show the insights that we get from the quarterly workforce indicators and I'm going to give a 2020 update. So the first part of this presentation is actually a presentation I gave a year ago at the LED conference in Suitland, Maryland back in the ancient days when we were allowed to have in-person meetings.

Those of you who are new, who just arrived in 2020 may not know what I'm talking about. But there actually was a time when we were able to all get together in one room and talk about issues and discuss some of these ideas. And I'm hoping that we can do that in person again. But in the meantime, I'm happy to present this in this format.

So this is the story of manufacturing that most people know, which is the long and significant declines in manufacturing employment, both nationally and here in Connecticut. But this part here, I know this doesn't look like a huge increase, is actually - since about the middle of 2016 our manufacturing employment has really overperformed the rest of the economy. Now Connecticut's economy has had extremely slow growth in terms of jobs but manufacturing really started to show some real significant gains a couple of years ago.

And we were getting a lot of employers who were contacting us telling us that they just could not find folks to fill the positions that they had open. They kept saying we'd love to hire more people, we just can't find the right people with - people with the right skills. They had, you know, hundreds and hundreds of openings and we saw evidence of that in the help wanted online job posting statistics.

We, you know, as you can see, this is manufacturing as a percent of total job postings and Connecticut was one of the top states in terms of that statistic. And while these are pretty volatile these are actually pretty high numbers in terms of the number of postings that are open at any particular time. Thousands of openings according to the help wanted online. And both the anecdotal evidence and the statistics that we had, suggested that the manufacturers were really, really trying to hire but couldn't find folks.

So this is a classic labor shortage and you would expect that a labor shortage would lead to stronger wage growth. But we didn't really see it. I mean we saw manufacturing wages, you know, they're higher than all industries. Of course all industries include thousands of jobs in very low paying industries such as restaurants and such.

And the - so manufacturing wages are definitely higher, but they weren't seeing the type of increase that you might expect given the labor shortage that was both advertised, you know, the manufacturers that were contacting us and also that we saw in the statistics. And even if - so this is now indexing the wages of all industries and manufacturing. And you can see that really manufacturing wages in many ways, underperforming wage growth in the overall economy even though job growth in manufacturing was overperforming and job growth was - really held back a little evidence.

It was really being held back by a labor supply problem, not a labor demand issue. So if it's labor supply that's holding back job growth you would expect wage growth to be faster in that particular industry than slower. And yet, we saw just the opposite. And it was somewhat of a puzzle. So fortunately, we do have the quarterly workforce indicators as part of the LED data set and there's a lot of information that you can get out of the quarterly workforce indicators to give us some insight into this particularly phenomenon.

And the first thing that we looked at is the age profile of the manufacturing workforce. And the labor force in the United States is aging, the labor force in Connecticut is aging but the manufacturing labor force in Connecticut was really aging.

And, you know, I'm going to be turning 60 next year so I have no problem saying, you know, they were getting old. And so we had a lot of workers in manufacturing who were getting towards the end of their career. And so that was something to explore a little more detail to see whether there is some information in here in terms of this puzzle, with regard to slower wage growth.

And QCW, you know, gives us average earnings, but the nice thing about the quarterly workforce indicators is one thing they can do is give us stable employment. So while all industries average from QCW is going to have all of the employees - part-time, full-time and you're just doing this very basic average, just have total jobs in a particular time period, total wages in a particular time period, just divide and you get average.

With the quarterly workforce indicators we could focus just on the stable employment and just eyeballing this you can see that maybe there's a little bit more growth in stable employment wages than we saw in the overall statistics. And the idea that manufacturing wages are underperforming all industries, part of that is already being solved when we look at just looking at stable employment that manufacturing stable wages are growing at about the same pace as stable wages in the economy as a whole.

And then the next great thing that we get from quarterly workforce indicators that you don't get from QCEW is we can look at separations and hires and we can look at earnings of separations and hires. And this is one where our priors might have been actually the opposite of this because one idea that is out there in the literature, is that people switch jobs in order to get a raise. And so if that were the major phenomenon you would expect that the wage of the hires would actually be higher than the wages of separations that you're going to

quit one lower paying job in order to get a higher paying job so your wage at hire would be higher than your wage at separation.

At least in Connecticut and at least for the past 20 years, that has not been the dominating phenomenon with regard to hires and separations. Somebody starting a new job is going to get paid less than somebody who is leaving a job that they've had for some time. So - and if we go to manufacturing, it is even a more dramatic gap that the wages at separation are significantly higher than the wages at new hire.

So this is now a real way to think about the puzzle because if you're losing people at high wages and you're gaining people at a lower wage then you're average is going to come down. Even if you're hiring like crazy and we had all this evidence from manufacturers that they were trying to hire, even if you're hiring like crazy, even if you're increasing your hiring wage and we can see a little bit of an upward trend here in the hiring wage.

Even if you're increasing the hiring wage your average wage is going to get pulled down if the people that you're losing are getting paid significantly more than the people that you're hiring. And you can see this gap here is over $1000 a month. And that's pretty significant, you know, in, you know, the number that's only $5500. $5000 less than that is, you know, 20% of the overall wage.

So this is now - let's look at the average monthly earnings of manufacturing. As you can see in every age group, manufacturing employment pays more than employment in all industries. But notice that the gap is particularly significantly large in the younger groups. Now these are only three-year groups, 19 to 21 and 22 to 24. So, you know, it's not necessarily we have a huge amount of employment in those particular age groups but the folks that

are able to get those jobs are obviously making more than their peers who are in other industries.

And also interesting, the gap is particularly high at the older group as well. And of course, a lot of folks who are retired may be working as, you know, the cliché is the greeter at Walmart. And then somebody who is still in their manufacturing career is going to be making a lot more than their peer in that other kind of a job.

Hires - so this is now comparing 2010 which is the worst of the recession, with 2018 which was the year of pretty good growth. So there's no surprise that hires were higher for every age group in 2018 than they were in 2010. But in manufacturing, it was really dramatic and particularly in this 25 to 34-year-old group. And while this isn't necessarily the youngest group of workers, it actually is pretty young when we look at the overall profile of the manufacturing workforce.

Remember, we had this very high percentage of the manufacturing workforce over age 55, and we had a lot of discussion about the employers who were trying to get people with a lot of experience.

Even at the older end of this range, at age 34, there are very few people -- this is kind of a joke here so think about it -- very few people 34 years of age who have 30 years of experience in manufacturing.

So they would have had to have started pretty young. So this is the group that they're hiring from and the - not with the type of experience that the manufacturing employers are used to having because they had such a stable and a long tenured labor force that was, you know, heading toward retirement.

So this is now the increase in hires. So remember, every industry, every - basically every industry and every age group we had an increase in hiring between 2010 and 2018 because comparing the worst of the recession to 2018 we're going to see more hiring.

But notice the age groups - so for example, in the 25 to 34-year-old age group we had 52% more hiring in all industries of folks in this age group, but we had 144% more hiring in this age group in manufacturing. So this is - the younger group really started to see an increase in hiring and manufacturing faster than in other industries in the - in 2018 compared to where things were in the recession.

And then separations - we actually had an increase in separations as well. You know, a lot of - you can have lot of churn particularly in the younger groups as people are changing jobs. And of course, we now have some folks heading towards retirement. But if you look at the situation for the manufacturing, just looking at manufacturing, we really see a big increase in the separations from the older groups.

This is - this big increase here in 25 to 34, remember the hiring was even higher. So this is, you know, you're going to have some jobs such as - that are going to show up in these separations because some of the, you know, they separated but then they've gone on right to another job. But a lot of the folks down in here are retiring.

They are higher waged, higher experienced workers leaving the labor force. And so again, this is the change in separations and notice we had a decrease in separations - separations were less for manufacturing than for the economy as a whole in sort of the prime working age group. But for the older groups we

had an increase in separations higher than for the economy as a whole in manufacturing.

So this is again, suggesting what we were seeing before, that we have older, more experienced, higher paid workers in manufacturing leaving the industry, retiring. Good for them. They've had their career; they're ready to have some other experiences in their life and they're being replaced by younger workers who are making less, maybe more than they would have made a couple of years ago, certainly more than they would make in some other industry, but bringing down that average QCEW wage.

So this is kind of the punchline of the presentation. So this is all industries and we can see that in general and we saw that line, in general we saw separations have a higher wage than new hires. But notice, at the younger groups that messed - that the phenomenon that we discussed where perhaps you're switching jobs to get a higher wage is actually true.

So this is again, one of the great insights we can get from the quarterly workforce indicators. Overall in the economy wages separation is higher than wage at hiring. But if we look at younger groups wage at separation is lower than wage at hiring. So this is consistent with that idea that people are quitting a job to take a higher paying job.

And in manufacturing, it's even more dramatic and this is really where I think we have really - have the strongest evidence that our proposed solution to the puzzle of why average wages in manufacturing have not been rising is due to high paid retirees being replaced by lower paid new workers, lower paid than the retirees because you're not going to pay a brand new employee as much as you were paying somebody who had 30 or 40 years of experience.

They're still getting paid more than they would have gotten paid a couple of years ago because they have had to increase the hiring wage. And they're getting paid more than they would have in another industry.

And yet it is still bringing down the average wage because of the loss of these highly paid retirees. So this is the wage at separation for somebody in this older group even in manufacturing, is much higher than the wage at hire. But down in the younger groups the wage at hire is higher than the wage at separation.

So that was the presentation from a year ago. And I do think that we really had some good insights from the quarterly workforce indicators. I'm a big fan of LED. I wouldn't be on the steering committee if I wasn't an advocate for this particular program. And certainly, appreciate the Census and the other states who are participating.

And I do think that we get some real solid insights into what's happening in the labor market by looking at hires, separations, the demographic breakdowns, so many statistics you can get that aren't available in the traditional QCEW and other data sets which, you know, I also am a big fan of because, you know, we've produced them in our office. And we do a great job but it's nice to get the additional insight that we can get from the quarterly workforce indicators.

And so since that presentation a year ago, obviously a lot has happened. And, you know, the biggest thing that's happened and I don't want to ruin anyone's day, but there is a global pandemic and - if you hadn't heard. And it's had a huge impact on employment. And Connecticut, like every other state, saw a huge decline in employment in March and April.

And now we've seen some in increases back and so, you know, this is the July number. We're actually going to be releasing the August number tomorrow and I can't tell you what that's going to be. But as you can see, we've had some significant increases, although we're still well below where we were when the pandemic hit.

Interestingly, our governor did make a manufacturing - all manufacturing industries on the essential list, although there were certainly some pandemic related shutdowns. So this is the same chart I showed you at the veery beginning of this presentation. So this is the monthly employment and manufacturing overall.

And then when we look at the pandemic, yes there has been an impact from the pandemic and we - just as with all industries, we've seen some increase. But it is interesting that while certainly the biggest thing that's happened to the labor markets, some people would argue, since the Great Depression of the 1940s, is the COVID-19 pandemic. It is not the biggest thing that's happened in Connecticut manufacturing.

We actually had a worse decline back ten years ago. And of course, no real bounce back. We're already seeing a bounce back in Connecticut manufacturing. So the forces of demand are still there and, you know, I do think that this is, you know, going to be considered a temporary phenomenon at least - there's going to be, you know, topics with another webinar, the structural changes to the overall economy because of the pandemic.

I don't think that we're going to see a lot of that in Connecticut manufacturing. I think Connecticut manufacturing is going to get back in business as soon as this pandemic is over. This is the growth in manufacturing. This is again, a chart that I showed you earlier in the presentation and a year ago. And now

I've added - so, you know, we had a little bit of a decline the first quarter. But we're - notice this is at - this is the 2016 quarter 4 equals 100.

The top of this chart is 103. We got well above 103 and we already had one month of the pandemic in this number. So we were starting to head down a little bit but I think we're heading right back up. And while that phenomenon that I discussed with regard to the retirees, I don't want to say that it's over, but I do think that the labor market is actually finally responding as you would expect.

Manufacturers are still looking for more people and they're having to see their wages go up.

So while I completely believe the story that I told earlier in this presentation, that we had a phenomenon of a large number of retirees being replaced by lower paid new workers holding down average wages, average wages are now actually starting to respond in ways that you would expect in a labor shortage, where average wages are starting to go up in manufacturing.

And this is the chart where I indexed it. So this is the exact same chart from a year ago and then we add the new data. So notice, we had a little flattish thing here at the end of my chart a year ago and now the - add the four more quarters and we're starting to see an increase.

So the retirement new hiring phenomenon held average wages down for a few years but now average wages are doing exactly what economists would predict which is that if you have a labor supply problem wages are going to start to adjust to meet it and you are seeing definitely competition between manufacturers for employees.

So that's the presentation. And I certainly look forward to the questions and answers. And I certainly would welcome anyone who wanted to contact me with questions about this or anything else about the Connecticut labor market. I'd be happy to take your calls and emails in the futures as well as the questions we're going to have right now.

Coordinator: We'll begin our formal question-and-answer session.

If you'd like to ask your question you may press Star, 1 on your telephone keypad. Only record your first and last name.

To withdraw your question you may press Star, 2.

One moment for the first question.

(Earlene Dowell): Thank you, (Catherine).

So we would like for everyone to please keep their questions pertaining to the presentation.

If you have any questions regarding the 2020 Census please go to 2020Census.gov.

I have a couple of questions for you that came into the chat Patrick. This question is from Cameron. Do we have net revenues as well, to see if the wage reductions were matched by increased profits?

Patrick Flaherty: No. Unfortunately, you know, at the Labor Department we really don't get any reports from companies and it's - and even though we have a number of very large publicly - excuse me, publicly traded firms headquartered in

Connecticut in the manufacturing industry who do file annual reports with their profits and with all their revenues, they don't necessarily break those down by state.

So, you know, it's multinational companies that's producing airplane engines in Connecticut. They're going to report a certain amount of profit to their stockholders. We can't know for sure how much of that profit has been generated by workers in Connecticut. So we know a lot about employment and wages in Connecticut but unfortunately not a lot about the companies' revenues and their profits, at least on a state-specific basis.

(Earlene Dowell): I have another question from Karen. Why do you choose to compare 2016 when looking at separation?

Patrick Flaherty: Well I mean that's a very good question and, you know, it really was where we saw the most dramatic increase in the amount of retirement.

So I did pick the year - so there was a little bit of, you know, data mining in that, which I know is from an economic theory perspective, is not necessarily the correct method. But for - from the perspective to trying to see what's really happening, I did pick the year where we seem to have the largest number of retirements and - which would then have the biggest impact on this average wage phenomenon that I discussed.

(Earlene Dowell): And one more question from the chat, this is from (Jude). And his question is, is there information about the type of roles the jobs and income represent?

Patrick Flaherty: Well we certainly know from the job postings what the employers are looking for. And so, you know, obviously every industry has a whole range of occupations, you know, from clerical to janitorial or whatever.

But in terms of manufacturing the industry, you know, we know that the companies are looking for machinists, tool and dye makers, you know, there are some very specific types of employment that is needed for the type of manufacturing that happens in Connecticut.

You know, Electric Boat, which is an employer, you know, they make submarines, have been very vocal about the thousands of people that they have been trying to hire. And working with our workforce boards to create some training programs to specifically train people for those particular jobs.

There's also a whole lot of supply chain into both the aerospace and the submarine industry. And those companies have been working with the large employers again, on workforce issues. So there is a lot that has been happening to try to train up workers for the jobs that are available. And it's, you know, everything has gotten more automated but it turns out that automation hasn't reduced the demand for workers.

But what it has done has increased the skill requirements so the workers that they're going to have on the shop floor in terms of, you know, basic math and some of the other technical skills that you would need to be able to work on even some of the small manufacturers that are supplying parts to the aerospace and submarine industry where, you know, I guess there's a particular part in an airplane that the manufacturer in Connecticut if they're, you know, 1 millimeter off the whole plane could crash.

So it's really a life and death thing to make sure that it's absolutely correct.

So they're very, very strict in terms of their quality control and making sure that their workers are - have the skills necessary to keep the planes in the air.

(Earlene Dowell): Catherine, are there any questions on the phone?

Coordinator: We do have one question in queue. One moment. And that first question is coming from Laurie. Your line is open.

(Laurie): I was just wondering if you're collecting a lot of your data from the Census' employment and unemployment survey.

Patrick Flaherty: I'm not exactly sure. I mean we're the labor market information office in Connecticut so we certainly are part of the local area unemployment statistics program which uses the current population survey as part of its statistics. The current population survey is a joint U.S. Census Bureau of Labor Statistics program. Is that the Census you're talking about?

(Laurie): No. I was previously working for the Census Bureau the last three years in Omaha, Nebraska. And we did an employment and unemployment survey that we did monthly so I was just curious if you were getting any of the data from there.

Patrick Flaherty: No. I am not. I'm not exactly familiar with the exact survey that you're talking about. I probably need to…

(Laurie): Okay.

Patrick Flaherty: …learn more.

(Laurie): I know it's out of Colorado is all I know. All right. Well, thank you.

Coordinator: We have no further questions in queue at this time.

(Earlene Dowell): Okay. Great. Well, thank you everyone for joining us this afternoon.

And upon closing out of the webinar please take the short survey that will pop up, so we can better serve you.

Join us next month, Wednesday, October 21st at 1:30 pm Eastern Standard Time, when Dylan Schaeffer presents a preliminary investigation into the metro area job-to-job flows and earnings data in the manufacturing sector.

And I just want to take this time to thank Patrick again, for his wonderful presentation. It was very enlightening.

And also I would like everyone to enjoy the rest of their day and please stay safe.

Coordinator: This will conclude today's conference. All parties may disconnect at this time.

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